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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,652	09/12/2003	Kenichi Tachibana	Q77465	7585
23373	7590	01/14/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			LE, DANG D	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/660,652

Applicant(s)

TACHIBANA ET AL.

Examiner

Dang D Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/23/04 have been fully considered but they are not persuasive.

In the art of motor and generator, it is well known to make the o-ring of resin for the purpose of sealing or reducing vibration and noise. The following references show the use of resin O-rings: Morii (4,686,861), Sanada (5,461,268), Elsing et al. (5,847,476), Kulig (3,995,167), Kaneko et al. (5,223,113), Motoda et al. (5,906,860), and Koaizawa et al.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to make the o-ring of Ayers of resin is to seal the vacuum chamber.

In addition, references may be combined although none of them explicitly suggests combining one with the other. *In re Nilssen*, 7 USPQ2d 1500 (Fed. Cir. 1989).

It is also noted that, in the art of motor and generator with vacuum chamber, it is well known to place the motor and the reduction gear either inside or outside of the

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chamber. The following references show the motor and the reduction gear outside of the chamber for the purpose of reducing heat (motor generating lot of heat): Nelson et al. (4,391,151), Phillips (3,619,806), Kulig (3,995,167), Motoda et al. (5,906,860), and Koaizawa et al. (6,543,257).

2. Applicant's arguments with respect to claim 3 have been considered but are moot in view of the new ground(s) of rejection. In addition, because of new claims 4 and 5, new grounds of rejection are made to claims 1 and 4 and 1, 2, and 5, respectively.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 is indefinite because it recites that "wherein the motor main body and the reduction gear main body are arranged in an atmosphere of the vacuum chamber" implying that they are inside the chamber. (Should "of" be replaced with – outside --?)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ayers (6,395,093) in view of Nakai et al. (4,155,826).

Regarding claim 1, Ayers shows a vacuuming motor, for being attached to a peripheral edge of a motor attaching hole of a vacuum chamber, comprising:

- A reduction gear (19) main body attached to an end portion on a load side of a motor main body, including an attaching flange fixed to the motor attaching hole to interpose an O-ring (27) therebetween; and
- A vacuum seal (25) fixed to the attaching flange contacting slidably with an output shaft of a reduction gear, for partitioning an inner space of the reduction gear main body and the motor main body and an inner space of the vacuum chamber.

Ayers does not show the vacuum seal made of resin.

Nakai et al. shows the vacuum seal made of resin for the purpose of separate two environments.

Since Ayers and Nakai et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the vacuum seal of resin as taught by Nakai et al. for the purpose discussed above.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ayers in view of Nakai et al. and further in view of Harris et al. (6,483,336).

Regarding claim 2, the motor of Ayers modified by Nakai et al. includes all of the limitations of the claimed invention except for a middle sucking port for vacuuming air at an interval between the vacuum seals.

Harris et al. shows a middle sucking port for vacuuming air at an interval between the vacuum seals (Figure 3) for the purpose of creating a vacuum environment.

Since Ayers, Nakai et al. and Harris et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include a middle sucking port for vacuuming air at an interval between the vacuum seals as taught by Harris et al. for the purpose discussed above.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ayers in view of Harris et al. (6,483,336) and further in view of Koaizawa et al. (6,543,257).

Regarding claim 3, Ayers shows all of the limitations of the claimed invention except for a middle sucking port for vacuuming air at an interval between the vacuum seals and the motor main body and the reduction gear main body being arranged in an atmosphere outside the vacuum chamber.

Harris et al. shows a middle sucking port for vacuuming air at an interval between the vacuum seals (Figure 3) for the purpose of creating a vacuum environment.

Koaizawa et al. shows the motor main body and the reduction gear main body being arranged in an atmosphere outside the vacuum chamber (Figure 20) for the purpose of reducing heat from the chamber.

Since Ayers, Harris et al., and Koaizawa et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include a middle sucking port for vacuuming air at an interval between the vacuum seals and to mount the motor outside of the chamber as respectively taught by Harris et al. and Koaizawa et al. for the purposes discussed above.

10. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayers in view of in view of Koaizawa et al. (6,543,257).

Regarding claims 1 and 4, Ayers shows all of the limitations of the claimed invention except for the vacuum seals being made of resin and the motor main body

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and the reduction gear main body being arranged in an atmosphere outside the vacuum chamber.

Koaizawa et al. shows the seals being made of resin and the motor main body and the reduction gear main body being arranged in an atmosphere outside the vacuum chamber (Figure 20) for the purpose of reducing heat from the chamber.

Since Ayers and Koaizawa et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the seals of resin and to include a middle sucking port for vacuuming air at an interval between the vacuum seals and to mount the motor outside of the chamber as taught by Koaizawa et al. for the purposes discussed above.

11. Claims 1, 2, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayers in view of Harris et al. (6,483,336) and further in view of Koaizawa et al.

Regarding claims 1, 2, and 5, Ayers shows all of the limitations of the claimed invention except for the seals being made of resin, the motor being place outside of the chamber, and a middle sucking port for vacuuming air at an interval between the vacuum seals.

Harris et al. shows a middle sucking port for vacuuming air at an interval between the vacuum seals (Figure 3) for the purpose of creating a vacuum environment.

Koaizawa et al. show the seals being made of resin and the motor being placed outside of the chamber for the purpose of reducing heat.

Since Ayers, Harris et al. and Koaizawa et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include a middle sucking port for vacuuming air at an interval between the vacuum seals, to make the seals of resin, and to place the motor outside of the chamber as respectively taught by Harris et al. and Koaizawa et al. for the purposes discussed above.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Information on How to Contact USPTO

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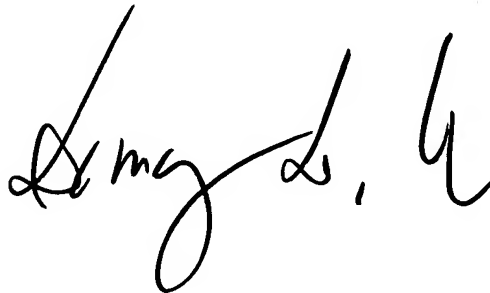
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (571) 272-2027.

The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

1/13/05

A handwritten signature in black ink, appearing to read "Dang D. Le". The signature is fluid and cursive, with the first name "Dang" being more prominent.

DANG LE
PRIMARY EXAMINER